

November 26, 2005

Kitty Martin
In-Use Control Measure Section Manager
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815

Subject: Development of Off-road Regulations

Dear Ms. Martin,

Nabors Well Services Co (NWSC) wishes to thank California Air Resources Board (CARB) and the CARB staff for the opportunity to participate in developing a control measure to reduce diesel particulate matter (PM) emissions from in-use (existing) off-road equipment operating in California. For the past thirteen (13) years, NWSC has taken an active role in the development of many CARB's regulations. NWSC has demonstrated its commitment to Off-Road Equipment Control Measure by being one of the first forty companies to participate in the Off-Road Equipment Survey. NWSC would like to register the following comments, concerns, and suggestions for further improvement in the Off-Road regulations. NWSC would like to preface our comments with the acknowledgement that CARB has always demonstrated an open mind in understanding the comments submitted by affected industries.

On November 10, 2005, Wayne Sobieraiski, Field Studies for CARB, visited NWSC and BJ Services to review our engine replacement programs. We discussed replacement options, the type of engines being replaced, the difference in emissions, problems generated during the replacement process and the cost of replacement. We showed Wayne equipment with certified engines operating in the field, equipment that required a replacement engine, and equipment located at fabrication shops in the process of having engines replaced. During Wayne's visit, he discussed the fleet averaging concept being discussed by CARB for Off-Road Equipment.

NWSC has several concerns with the fleet averaging concept. The first concern is that CARB will take the current fleet as the baseline and affected industries will apply the fleet average calculation on that current fleet. In 1997, NWSC developed the strategy to replace its current engine inventory to the newest certified engines. This strategy includes replacing old two cycle engines with the most current engine technologies. NWSC has replaced about 65% of its current engine inventory. NWSC's strategy has reduced real emissions in California. Why should companies in the process of reducing emissions be penalized with a fleet averaging concept? If CARB moves to a fleet average, the regulations should include a target weighted PM emission

fleet average. The target would take into account the new certified engines in a company's inventory.

The second concern is that the fleet averaging concept is complex and requires a large amount of recordkeeping. Recordkeeping is very costly to affected industries and will not reduce emissions. NWSC would like to suggest a simple solution in moving the current engine inventory to cleaner technologies. CARB will establish the goal that all engines used in off-road applications should install certified engines within so many years. The regulations would establish the requirement that affected industries will have a certain percentage of certified engines be installed each year. For example, the regulations would require all engines be certified in four years, and the affected industries must replace 25% of its inventory each year. The only recordkeeping required is to report the inventory of the engines at the end of each year.

The third concern is whether the affected industries will have the ability to generate the capital required to replace the engines or equipment mandated by the regulations or not. I have made the statement several times at workshops about companies operating under budget limitation. NWSC started their 2006 budget process in August 2005, and the final approval was completed November 2005. It is a general rule that if the engine or equipment is not in the capital budget, the project will not take place. If CARB develops the regulation that requires certified engines in four (4) years, it will take affected industries five (5) years to develop budgets to comply with that regulation. Another concern on the financial side is that an industry could have a downturn in activity and that industry would not have the ability to generate the required capital to pay the compliance cost.

NWSC's strategy is to replace expired engines with the newest certified engines being manufactured at the time of the replacement. NWSC currently has Tier 1, 2 and 3 engines in our engine inventory. Most of CARB's regulations are moving to Tier 4 engines which are not currently being built. NWSC would like to purchase Tier 4 engines, but some Tier 4 engines will not be manufactured until 2008 through 2014. If NWSC has a 225 horsepower engine go down today, NWSC has two options: (1) overhaul the old polluting two cycle engine or (2) replace the engine with a certified engine. Today, the only 225 horsepower engine manufactured is a Tier 2 engine. The air quality is improved in California with the Tier 2 engine with a 71% reduction in NOx, 54% reduction in VOC, 97% reduction in CO and 70% reduction in PM. **NWSC is requesting that if we make the investment into new certified engines, we will be afforded the opportunity to use the new engine for its useful life with out additional capital investment.**

NWSC has expressed the concern with the ability of the engine manufacturers to meet the future demand for engines in California. CARB has developed ATCM for stationary sources, public fleets, trash haulers and portable equipment that require the replacement of old engines with new certified engines by the end of 2009. Today, if NWSC orders a new certified engine from Caterpillar, the delivery time is thirteen weeks. The demand for certified engines will really start heating up in 2007. What will the delivery time be in 2009? CARB must make sure that the inventory of new certified engines is available for purchase or be willing to reduce the requirement in the regulations if the demand is not supplied.

NWSC would like to make the suggestion that CARB has some form of company registration where the company would report the full inventory of engines and equipment operating in the off-road application. CARB has to make sure that they receive 100% participation of the industries operating in California. In the Portable Equipment Registration Program (PERP), CARB believes that only 30% of the portable equipment operating in California is in the PERP or one of the local district programs. The PERP was adopted in 1997 and we have 70% of portable equipment operating as "Scofflaw". Scofflaws are equipment operators that will not comply with the state and local regulations. The affected industries do not want the competitive disadvantage to occur in another regulation.

NWSC believes that the off-road regulations should be developed in such a manner that would reduce the impact on industry. Regulations place requirements on industry that mandates the investment of capital into equipment. These investments must be good business decisions that will generate the best return on investment and achieves a balance between environmental protection and industry viability. The capital should be spent on emission reductions and not red tape activities.

NWSC sincerely requests that CARB take these suggestions and concerns under advisement in the development of the off-road regulations. NWSC is pleased to have this opportunity to participate in the development process. If you have any questions regarding our comments, please contact me at 661-392-7660 or by e-mail at james.thomas@nabors.com.

Sincerely,

A handwritten signature in black ink that reads "James Thomas". The signature is written in a cursive, flowing style.

James Thomas
Administrative & Regulatory Affairs Manager